AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(currently amended)** A haptic feedback controller for controlling a controlled appliance, comprising:

a base;

a cap to be operated by a user of the haptic feedback controller, said cap being ~~that is~~ rotatable with respect to the base;

a piezoelectric motor including a stator that is fixed to the base and a rotor that is fixed to the cap;

~~a rotation control device for controlling a rotational state of the piezoelectric motor; and~~

a rotational state detecting device for detecting [[the]] a rotational state of the cap with respect to the base, or [[the]] a rotational state of the piezoelectric motor, caused by the user's operation of the cap; and

a rotation control device for controlling, based on the detected rotational state, a rotation of the piezoelectric motor to provide haptic feedback to the user;

wherein ~~the stator of the piezoelectric motor is in direct physical contact with the rotor, without the intermediary of gears and/or belts, for driving the rotor to rotate to provide haptic feedback to a user of the controller~~ the rotor is pressed onto the stator with a pressing force that is changed directly by changing the force with which the user presses the cap onto the base so that strong haptic feedback is obtained when the cap is pressed by the user with a strong force and weak haptic feedback is obtained when the cap is pressed by the user with a weak force.

2. (previously presented) A haptic feedback controller according to claim 1, further comprising an input/output device for outputting rotational state information based on a detection result of the rotational state detecting device and receiving an input of feedback information used for controlling the rotational state of the piezoelectric motor.

3. (previously presented) A haptic feedback controller according to claim 1, further comprising a shock absorbing member between the base and the stator and/or between the cap and the rotor.

4. (previously presented) A haptic feedback controller according to claim 3, wherein said rotor includes a sliding member in sliding frictional contact with the stator.

5. (previously presented) A haptic feedback controller according to claim 1, further comprising a mechanism for changing a distance between the base and the cap in a direction in which pressure is applied to press the rotor on the stator.

6. (previously presented) A haptic feedback controller according to claim 1, further comprising a bearing mechanism for rotationally supporting the base on the cap.

7. (previously presented) A haptic feedback controller according to claim 1, wherein the rotational state detecting device includes an encoding barcode on an inner surface of the cap and a sensor unit fixed to an inner surface of the base, thereby detecting movement of the encoding barcode with respect to the sensor unit to detect the rotational state of the cap with respect to the base.

8. (previously presented) A haptic feedback controller according to claim 1, wherein the rotational state detecting device detects the rotational state of the piezoelectric motor by analyzing a current flowing through the piezoelectric motor.

9. **(currently amended)** A haptic feedback controller according to claim 1, wherein the haptic feedback controller is ring-shaped with each of the cap, the rotor, the stator and the base being annular and extending around an empty space at a center of the ring-shaped haptic feedback controller.

10. (previously presented) A haptic feedback controller according to claim 9, wherein

the base and the cap are disposed so as to face one another with a predetermined gap between the respective outer circumferential parts thereof, and

said controller further comprises a plurality of contact switches disposed apart from one another in a circumferential direction on at least one of the outer circumferential parts.

11. (previously presented) A haptic feedback controller according to claim 9, further comprising a plurality of contact switches disposed apart from one another in a circumferential direction on an inner circumferential surface of the haptic feedback controller.

12. (previously presented) A haptic feedback controller according to claim 1, further comprising a non-slip member on a bottom surface of the base.

13. **(currently amended)** A haptic feedback controller according to claim 1, further comprising a control unit for controlling the piezoelectric motor, when the user has rotated the cap, to maintain [[a]] the rotational state.

14. **(currently amended)** A haptic feedback controller according to claim 1, further comprising a control unit for controlling the piezoelectric motor, when the user has rotated the cap, so that the rotor moves in a direction away from the stator to reduce a pressure of the rotor on the stator.

15. (previously presented) A haptic feedback controller according to claim 1, further comprising a control unit for controlling the piezoelectric motor, when the user has caused a change in the rotational state of the cap, to maintain said changed rotational state .

16. (previously presented) A haptic feedback controller according to claim 1, further comprising a control unit for electronically controlling the piezoelectric motor in different operation modes to produce different kinds of sound and/or vibration and/or resistance to rotation of the cap.

17. (previously presented) A haptic feedback controller according to claim 1, further comprising a plurality of light sources disposed apart from one another in a circumferential direction of the controller.

18. (previously presented) A haptic feedback controller according to claim 2, wherein the input/output device includes an input/output power interface for obtaining a power supply from the controlled appliance.

19. (previously presented) A haptic feedback controller according to claim 2, wherein the input/output device includes an input/output wireless interface for wirelessly exchanging information with the controlled appliance.

20. (previously presented) A haptic feedback controller according to claim 1, wherein the rotation control device and the rotational state detecting device are entirely disposed in a space

formed between the base and the cap.

21. (previously presented) A combination of the haptic feedback controller according to claim 1 and the controlled appliance, wherein the controlled appliance is one of a PC, a household electrical good, a game system, a toy, a content editing appliance, a means of transport, a machine tool, and a medical tool.

22-25. (canceled)

26. **(canceled)**

27. **(new)** A haptic feedback controller according to claim 1, wherein the stator of the piezoelectric motor is in direct physical contact with the rotor, without the intermediary of gears and/or belts, for driving the rotor to rotate to provide haptic feedback to the user.

28. **(new)** A haptic feedback controller according to claim 1, wherein

each of the stator and rotor defines a cavity, through which a rotational axis of the cap passes, and allows the cap to rotate with respect to the base; and

the rotational state detecting device is disposed between the cap and the base for detecting the rotational state of the cap with respect to the base or the rotational state of the piezoelectric motor which rotates in a circumferential direction centered around the rotational axis.